FACT-FILE

Extra Salaries Received by Faculty Members

Discipline and rank	Base salary* Number	Base salary* Average	Extra earnings** Academic year from all sources Number	Academic year from all sources Average	Summer from teaching Number	Summer from teaching Average	Summer from research Number	Summer from research Average	Summer from other Number	Summer from other Average
Biology	108	23,264	29	1,581	41	3,142	62	4,762	3	n/a
Professor	57	27,430	18	1,840	25	3,720	30	5,455	2	n/a
Associate	37	19,460	8	1,144	10	1,985	25	4,495		—
Assistant	14	16,358	3	n/a	6	2,662	7	2,746	1	n/a
Business	256	24,684	107	3,444	89	4,127	76	4,505	24	932
Professor	88	29,927	42	4,249	32	5,114	31	5,061	5	1,271
Associate	92	22,985	37	3,225	34	3,694	19	3,936	10	1,124
Assistant	58	20,446	23	2,523	18	3,700	25	4,296	8	289
Chemistry	92	23,645	20	1,739	30	3,470	41	4,708	1	n/a
Professor	53	27,672	13	1,939	19	4,149	22	6,050		—
Associate	26	19,526	5	1,834	8	2,303	14	3,842	1	n/a
Assistant	12	15,797	2	n/a	3	n/a	4	n/a		—
Economics	63	25,030	23	2,833	39	3,580	20	4,312	10	1,737
Professor	30	31,011	13	3,865	15	4,638	13	5,300	3	n/a
Associate	18	21,327	7	1,678	14	3,451	3	n/a	4	n/a
Assistant	15	17,513	3	n/a	10	2,174	4	n/a	3	1,915
Engineering	438	24,528	154	1,685	191	3,756	295	4,649	48	1,219
Professor	257	28,062	89	1,683	94	3,954	190	5,209	27	1,400
Associate	117	20,750	33	1,583	62	3,921	74	3,989	16	978
Assistant	60	17,323	31	1,845	35	2,930	29	2,797	3	n/a
English	134	$20,846	67	$1,477	84	$3,126	16	$1,671	12	$1,388
Professor	54	26,311	29	1,958	36	4,168	5	1,835	7	1,462
Associate	48	18,853	23	1,175	29	2,808	7	1,618	4	n/a
Assistant	29	14,735	12	1,112	17	1,598	4	n/a	1	n/a
Foreign languages	51	19,712	24	1,291	31	2,375	5	1,691	7	1,544
Professor	21	24,041	11	1,565	15	2,619	2	n/a	2	n/a
Associate	15	18,250	7	1,123	10	2,301	1	n/a	2	n/a
Assistant	15	15,114	6	983	6	1,890	2	n/a	3	n/a
Philosophy	33	21,441	13	977	20	2,976	6	3,495	3	n/a
Professor	12	28,513	4	n/a	6	4,566	4	n/a	1	n/a
Associate	11	20,245	4	n/a	10	2,519	1	n/a		—
Assistant	8	14,421	3	n/a	4	n/a	1	330	2	1,083
Physics	105	25,353	15	1,676	26	3,314	74	5,586	6	2,855
Professor	74	28,291	12	2,044	18	3,943	53	6,296	4	n/a
Associate	21	19,116	2	n/a	7	1,919	14	3,645	1	n/a
Assistant	10	16,710	1	n/a	1	n/a	7	4,093	1	n/a
Psychology	148	22,553	56	2,345	55	2,441	38	4,203	6	2,429
Professor	44	29,330	12	3,014	17	2,899	13	6,021	1	n/a
Associate	54	20,368	20	3,249	21	2,768	9	2,978	2	n/a
Assistant	48	19,135	23	1,303	16	1,613	15	3,576	3	n/a
Sociology	52	24,325	16	1,791	30	3,538	24	4,618	7	4,189
Professor	22	31,737	6	2,693	9	4,254	13	6,532	4	n/a
Associate	17	21,088	5	1,792	13	3,995	5	2,105	3	n/a
Assistant	11	16,327	3	n/a	7	1,821	5	2,501		—

* 1977-78 data from eight research universities.
** Averages calculated only for those faculty members receiving extra earnings equal to at least 1 per cent of their base salary.
n/a Average not calculated because there are fewer than five faculty members in the category.
— Indicates no faculty member in the category.

SOURCE: OFFICE OF INSTITUTIONAL STUDIES, UNIVERSITY OF SOUTHERN CALIFORNIA

Teachers Said to Average 21 Pct. over Base Salary

By Jack Magarrell

Many faculty members are being paid one-fifth more than their reported base salaries, researchers at the University of Southern California have found.

A significant portion of faculty salaries is never included in published data compiled by the National Center for Education Statistics and the American Association of University Professors, the researchers said.

The U.S.C. study includes only the salary paid by a faculty member's own university, without adding any income from outside sources, such as consulting, book sales, or teaching at other institutions.

"The comparison of nine-month salaries with other professionals' 12-month salaries is not a valid one when a majority of higher education's faculty [members] are earning above-base salaries," says the U.S.C. report.

In their efforts to find out how much university professors actually are paid, the researchers encountered a major obstacle.

At university after university, said Robert H. Linnell, director of U.S.C.'s office of institutional studies, they found that "the institutions do not know how much salary they pay their faculty members."

Universities, he said, generally maintain salary records in the form that N.C.E.S. and A.A.U.P. collect it—base salaries for a nine-month year.

The Southern California salary survey obtained information on 1977-78 salaries actually paid at 12 major research universities but received detailed data from only eight of the institutions.

The survey was undertaken by a project on "ethical and economic issues," with support from the Carnegie Corporation of New York.

Data on 3,718 faculty members with nine-month contracts showed that seven in every 10 had additional university income, ranging from 1 per cent to 56 per cent of their base salaries.

A majority of those who had extra earnings were getting between 10 and 30 per cent more than their base salaries from extra teaching, research, or other services. The average was 21.5 per cent of base salary.

The percentage of faculty members receiving extra income and the size of the additional payments varied according to academic discipline and rank.

The report, *Faculty Compensation: Total University Earnings at Research Universities*, was written by Kristine E. Dillon, assistant director of the project on ethical and economic issues; Mr. Linnell; and Herbert W. Marsh, senior staff associate in the office of institutional studies.

The authors recommended broader collection of data on total, actual faculty salaries.

Mr. Linnell said that all research universities will be invited to participate in later surveys.

How Earnings in Academe Compare with Other Fields'

The average earnings of physicians and other health professionals are 90 per cent higher than those of college professors, a comparative study has found, but faculty members earn 90 per cent more, on the average, than members of the clergy.

Census data on income reported by college professors and other professional workers have been used by researchers at the University of Southern California to compare faculty members' total earnings with those of other professionals.

The researchers, Kristine E. Dillon, Herbert W. Marsh, and Terri L. Cooper, found that faculty members ranked eighth highest among 16 professional groups in the study.

They also found that the total earnings of scientists, engineers, and social scientists employed by colleges and universities averaged about $1,000 less than those of comparable scientists and engineers working for non-academic employers. However, they said, the difference between the two groups was not statistically significant.

The average salaries used in the study were total personal earnings reported by individuals for 1976 in a Census Bureau survey.

The following table compares the average personal earnings of 16 professional occupations:

Rank	Profession	Average earnings
1.	Health practitioners	$36,187
2.	Lawyers and judges	28,175
3.	Managers and executives	24,718
4.	Engineers	24,332
5.	Accountants	21,713
6.	University and school administrators	21,378
7.	Scientists	21,054
8.	College faculty members	19,840
9.	Social scientists	19,030
10.	Technicians	18,896
11.	Social and recreation workers, counselors	15,750
12.	School teachers	14,982
13.	Librarians and curators	14,277
14.	Artists and entertainers	13,995
15.	Health workers	13,634
16.	Clergy and religious	10,418

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E CHRONICLE
of Higher Education
October 22, 1979 • $1
Volume XIX, Number 8

Universities May Lose Research Funds Under Proposed HEW Auditing Rules

Penalties could include 10-pct. reduction in future grants, 9-pct. interest on repayments

By Anne C. Roark

WASHINGTON

Universities and medical schools that fail to meet the federal government's accounting standards could lose up to 10 per cent of their future research awards, under a plan being considered by the Department of Health, Education, and Welfare.

The plan, which may not be formally approved for months or even years, would provide the government with its first comprehensive manual for resolving audit disputes with universities.

Not only would it require institutions to repay the federal funds for which they cannot satisfactorily account, but the plan also would require 9-per-cent interest on any funds that have to be repaid.

In cases where institutions cannot document their expenditure of federal money, the manual would allow government auditors to use whatever "non-statistical estimating techniques" they deem necessary to develop estimates of unallowable expenditures.

The H.E.W. office of management and budget drafted a revised version of the proposals in May but did not release the document until late last summer, and then only to a handful of education-finance experts who were asked for their opinions.

Will It Be Published?

What concerns the experts, who have been studying the 53-page document for the past two months, is that H.E.W. may put all or part of the plan into operation without publishing it in the *Federal Register* and allowing the general public to comment on it.

Last week H.E.W. officials would not say when or how the manual might be put into official use. One official did admit that some of the issues in the new document were controversial enough to warrant special consideration by Secretary of Health, Education, and Welfare Patricia Roberts Harris.

So far, the university financial experts who have been studying the manual have denounced many of its requirements and penalties as a "radical" and "unacceptable" departure from traditional federal policy toward scientific research.

"The manual as proposed is a far-reaching document embodying a philosophy which we feel is fundamentally 'wrong,' " wrote Reagan Scurlock of the Committee on Governmental Relations for the National Association of College and University Business Officers.

It represents "a general tone of distrust and suspicion towards universities," he told H.E.W.'s management and budget

Continued on Page 10, Column 3

Use of Technology for Teaching Said Lagging, Despite Colleges' Big Spending on Computers

By Jack Magarrell

WASHINGTON

Despite the growing role of computers in higher education, they "are not commonly used in the instruction of most students" and more than a million college students have no access to computers, a Congressional subcommittee has been told.

"We do not yet know how to integrate these technologies into the classroom or into the lives of students in a way that is effective and satisfying," said F. James Rutherford, the National Science Foundation's assistant director for science education.

About 2 per cent of the total spending by colleges and universities—more than $1-billion—goes for computing, but instruction and research are getting a decreasing share of that money, according to Robert C. Gillespie, vice-provost for computing at the University of Washington.

Between 1970 and 1977, the share of computing funds spent for administrative uses increased from 34 per cent to 45 per cent, with a corresponding reduction in the share for instruction and research, he said.

"The pressures to improve the effectiveness of university management and to comply with federal and state government needs for information are spurs to the rapid growth of administrative computing," Mr. Gillespie said.

Recent surveys of computer use in the U. S. indicate:

▶ That higher education's spending for computing in administration, research, and instruction nearly doubled between 1971 and 1977.

▶ That the number of colleges and universities with access to computers doubled in 11 years, from one out of three in 1965 to two out of three in 1976.

CHRONICLE PHOTOGRAPH BY JOHN C. PHILLIPS

"If computers can make education more gratifying, then a new plateau in our national life might be achieved."
—Lewis M. Branscomb of I.B.M.

The hearing before the House Subcommittee on Science, Research, and Technology was prompted by a proposal to establish a federal commission to study how computer-based techniques can be applied to learning at all levels of education and how to prepare young people to live in and operate an "information-based society."

A New Commission

The bill, HR 4326, was introduced by Rep. James H. Scheuer, a New York Democrat who chairs the Subcommittee on Domestic and International Scientific Planning, Analysis, and Cooperation. The bill would establish a National Commission on the Scientific and Technological Implications of Information Technology in Education.

Within a year, the commission would be required to complete a series of studies, including the following:

▶ A 20-year forecast of changes in information technology, their effects on education, and the need for people with computer skills.

▶ Investigation of the status and effectiveness of existing computer-based techniques of instruction.

▶ A study of costs and benefits of methods of training teachers in the use of materials for computer-based instruction.

▶ A study of incentives for increasing private-sector involvement in research and

Continued on Page 5, Column 1

News Summary

Articles on inside pages

JOHN C. PHILLIPS

The Department of Education, created by legislation signed last Wednesday by President Carter, above, will not bring increased federal control, he says. Story on Page 7.

Control of the National Archives by the General Services Administration is criticized by academic researchers as too political and too removed from scholarly concerns. Story on Page 3.

Stopgap appropriations to keep the government operating for another month have been approved by Congress, amid indecision on abortion and pay-raises. Story on Page 9.

Schools of social work brace for further reductions in federal funds under pending legislation. Story on Page 7.

Fulbright awards to U. S. scholars for study abroad in 1979-80 are listed, by academic discipline, on Pages 12 and 13.

The 1979 Nobel laureates include faculty members at five American universities. Story on Page 5.

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FACT-FILE

Fiscal 1980 Appropriations for Higher-Education Programs

Spending approved by Senate and House of Representatives for U.S. Department of Health, Education, and Welfare

	Fiscal 1978	Fiscal 1979	Fiscal 1980
OFFICE OF EDUCATION			
Student assistance:			
Basic opportunity grants	$2,160,000,000	$2,600,000,000	$1,718,000,000
Supplemental opportunity grants	270,093,000	340,100,000	370,000,000
College work-study	435,000,000	550,000,000	550,000,000
National direct loans	310,500,000	310,500,000	286,000,000
State student-incentive grants	63,750,000	76,750,000	76,750,000
Guaranteed student loans:			
Interest subsidies	121,781,000	760,395,000	793,624,000
Student loan insurance fund	368,382,000	185,635,000	165,997,000
Borrowing authority	40,000,000	25,000,000	0
Health-profession student loans	0	2,500,000	0
Programs for the disadvantaged	115,000,000	140,000,000	147,500,000
Educational information centers	2,000,000	3,000,000	3,000,000
Institutional assistance:			
Developing institutions	120,000,000	120,000,000	110,000,000
Language training and area studies	18,000,000	20,000,000	20,000,000
University community services	18,000,000	16,000,000	10,000,000
State postsecondary education commissions	3,500,000	3,500,000	3,000,000
Payments to colleges that enroll veterans	23,750,000	19,000,000	14,380,000
Cooperative education	15,000,000	15,000,000	15,000,000
Construction:			
Annual interest grants	4,000,000	29,000,000	29,000,000
Continuing-education centers	0	500,000	0
College personnel development:			
Graduate professional opportunities	3,250,000	8,000,000	8,850,000
Legal training for disadvantaged students	1,000,000	1,000,000	1,000,000
Public-service fellowships	4,000,000	4,000,000	4,000,000
Mining fellowships	4,500,000	4,500,000	4,500,000
Law-school clinical experience	1,000,000	2,000,000	4,000,000
Wayne Morse chair on law and politics at the University of Oregon	500,000	0	0
Humphrey Institute and Dirksen Center	0	7,500,000	0
Library resources:			
College library resources	9,975,000	9,975,000	4,988,000
Research libraries	5,000,000	6,000,000	6,000,000
Training and demonstration	3,000,000	3,000,000	1,000,000
Undergraduate instructional equipment	7,500,000	0	0
Educational personnel training:			
Teacher centers	8,250,000	12,625,000	13,000,000
Teacher corps	37,500,000	37,500,000	30,000,000
Occupational-vocational education	725,750,000	674,453,000	776,880,000
Women's educational equity	8,085,000	9,000,000	10,000,000
OTHER H.E.W. PROGRAMS			
Office for Civil Rights	39,936,000	69,097,000	67,442,000
National Institute of Education	89,971,000	96,614,000	91,172,000
Fund for Improvement of Postsecondary Education	12,000,000	13,000,000	13,500,000
National Center for Education Statistics	13,940,000	10,561,000	9,947,000
Alcohol, Drug Abuse, and Mental Health Administration:			
Mental-health research grants	107,421,000	130,807,000	145,250,000
Mental-health training grants	68,263,000	90,400,000	90,354,000
Drug-abuse research	34,092,000	42,930,000	46,000,000
Drug-abuse training grants	9,379,000	10,000,000	8,680,000
Alcoholism research grants	16,182,000	22,197,000	*
Alcoholism training grants	5,052,000	7,200,000	*
Health Services Administration:			
Maternal and child health research and training	29,354,000	32,177,000	31,843,000
Health Resources Administration:			
Health-professions student assistance	86,500,000	93,500,000	113,500,000
Health-school assistance	149,000,000	123,500,000	94,268,000
Nursing programs	122,000,000	106,250,000	*
National Institutes of Health:			
Cancer Institute	851,800,000	936,677,000	1,000,000,000
Heart, Lung, and Blood Institute	424,927,000	506,384,000	527,544,000
Institute of Dental Research	57,437,000	65,213,000	68,318,000
Institute of Arthritis, Metabolism, and Digestive Diseases	243,269,000	302,767,000	341,246,000
Institute of Neurology and Stroke	170,932,000	212,365,000	242,000,000
Institute of Allergy and Infectious Diseases	154,943,000	191,328,000	215,402,000
Institute of General Medical Sciences	196,298,000	277,628,000	312,478,000
Institute of Child Health and Human Development	91,124,000	197,630,000	208,981,000
Institute on Aging	34,863,000	56,911,000	70,000,000
Eye Institute	80,694,000	105,192,000	113,000,000
Institute of Environmental Health Sciences	58,644,000	78,260,000	83,912,000
John E. Fogarty International Center	8,459,000	8,989,000	8,989,000
Social Security survivors:			
Educational benefits**	1,277,000,000	1,378,000,000	1,509,000,000

* Program not authorized at the time the appropriations bill was considered.

** Fiscal 1979 and 1980 figures are estimates of total benefits required by the authorizing legislation to be paid in that fiscal year to persons who qualify for this program.

HEW Assured of Funds Through Late November

WASHINGTON

The Department of Health, Education, and Welfare got some temporary relief from its chronic money problems last week, when President Carter signed a stopgap measure to provide funds for the department through Nov. 20.

Because the House of Representatives and Senate have been unable to agree on amendments to the regular appropriations measure for fiscal 1980, the department had been without funds since Oct. 1, when the new fiscal year began.

Under the stopgap measure, which also includes support for the Department of Labor, funds for education and health-research programs will be provided at the compromise level approved by House-Senate conferees earlier this year. (See chart at left.) The conferees agreed on a total fiscal 1980 appropriation for the departments of $72.4-billion—$1.3-billion below President Carter's budget request.

Dispute over Student-Aid

Perhaps the biggest controversy in spending for H.E.W. involved appropriations for the largest of the federal student-aid plans, the Basic Educational Opportunity Grants program.

Last summer, the conferees had agreed to go along with a Senate plan to delete $726-million from the program's budget, on the grounds that unused appropriations could be made available as a "re-appropriation" from fiscal years 1978 and 1979.

Although there has been considerable debate over how much the program would actually cost in fiscal 1980, lawmakers in both the House and Senate have insisted that the reduction in appropriations for this year is a "matter of bookkeeping procedure" and does not represent a cut in actual expenditures.

The money bill will provide $1.72-billion in new funds for basic grants and $726-million in re-appropriations.

For all federal student-aid programs the bill will provide nearly $3.1-billion—compared to the President's request of $2.96-billion and the fiscal 1979 level of $3.9-billion.

Raises and Abortions at Issue

For the National Institutes of Health—which provides the bulk of the federal support for health research in the United States—the bill allocates nearly $3.43-billion, compared to the President's request of $3.17-billion and the fiscal 1979 appropriation of nearly $3.19-billion.

Before a permanent Labor-H.E.W. appropriations bill can be passed for the current fiscal year, lawmakers in the House and Senate will have to settle their differences over pay raises for themselves and support of abortions for low-income women.

The Senate has objected to a House provision in the Labor-H.E.W. bill calling for a 5.5-per-cent pay raise for members of Congress and high-level federal employees. The House has opposed Senate demands for a relatively liberal interpretation of the conditions under which women may use federal health-care money to pay for abortions.

In passing the temporary funding measure, the Senate agreed to the pay raise and to restricting the use of federal funds for abortions to cases where the mother's life is in danger or in promptly reported cases of rape or incest. —ANNE C. ROARK

Carter Picks First Director for New Scientific Institute

WASHINGTON

Nyle C. Brady, director of the International Rice Research Institute in the Philippines, is expected to be nominated by President Carter as the first director of the Institute for Scientific and Technological Cooperation.

The institute on cooperation, a federal research agency to focus on the needs of the world's developing countries, was the subject of publicity at a United Nations Conference on Science and Technology for Development in Vienna last August.

The institute is far from actually operating. The Senate this month failed to approve funds for the institute. Although a subcommittee had recommended an allocation of nearly $19.8-million for institute, the full Committee on Appropriations rejected the plan and the Senate went along with that decision.

Last summer the House of Representatives voted to spend nearly $23.8-million on the institute, in addition to transferring more than $60-million in funds for projects now under way in the Agency for International Development.

House-Senate conferees were expected to meet this week to work out the differences in the two proposals.

Appropriations recommendations for the institute were included in HR 4473, a measure providing funds for foreign-assistance programs for fiscal 1980.

Mr. Brady, the man who is expected to run the institute, has spent the last six years at the International Rice Research Institute where he concentrated on such research questions as the effects of lime in soil, the physiology of the peanut plant, and the influence of fertilizer on the yield of rice, corn, and coffee.

Before joining the rice institute, Mr. Brady was on the faculty of Cornell University. He received his B.S. degree from Brigham Young University in 1941 and his Ph.D. from North Carolina State College in 1947. —ANNE C. ROARK

In Federal Agencies

Clinical Research. The Public Health Service proposed, in the Oct. 12 *Federal Register*, new rules setting standards for personnel in clinical laboratories. The public may comment until Dec. 11.

Discrimination. The Office for Civil Rights published, in the Oct. 10 *Federal Register*, a policy interpretation of anti-discrimination regulations under Title VI of the Civil Rights Act of 1964. The interpretation discusses affirmative-action programs at institutions of higher education, to clarify federal policy in the light of the Supreme Court's *Bakke* decision.

Health Education. The Health Resources Administration announced, in the Oct. 11 *Federal Register*, that it is accepting grant applications from dental schools with programs for training dental assistants, under the Expanded Function Dental Auxiliary Training program. Applications must be submitted by Nov. 15.

Health Education. The Health Resources Administration published, in the Oct. 15 *Federal Register*, notice of changes in the terms of loans under the Health Professions Educational Facilities program, and other loans guaranteed under the Public Health Service Act.

Science Education. The National Science Foundation announced, in the Oct. 10 *Federal Register*, that it plans to finance projects studying the problems handicapped people face in science education. Proposals may be submitted until Nov. 15.

NOTE

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